Childhood Lead Poisoning Prevention Program Jefferson County, Kentucky

Environmental Health and Protection Jefferson County

Jefferson County

Forrest Staley, MUP

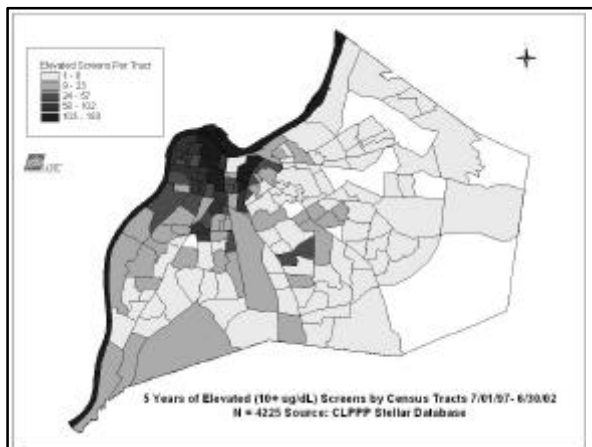**Acknowledgement: Bart Brown**
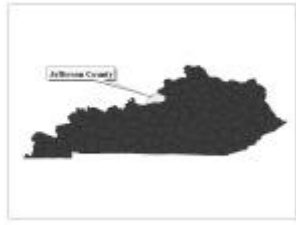
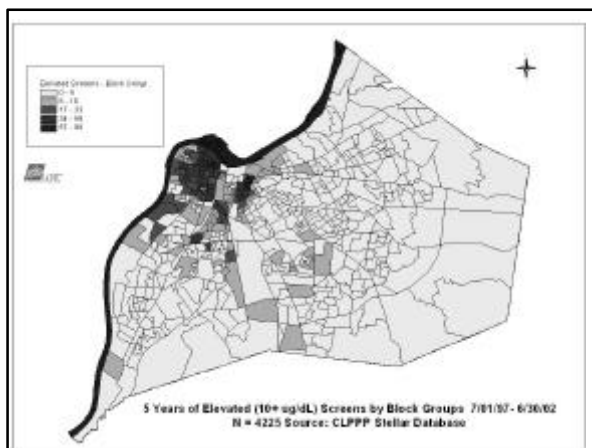
Different Ways to Look at Data Using GIS

1. **Surveillance**

2. **Modeling: A Continuous Age of Housing Prediction Model**

3. **A Lead-Level Predictor Model**

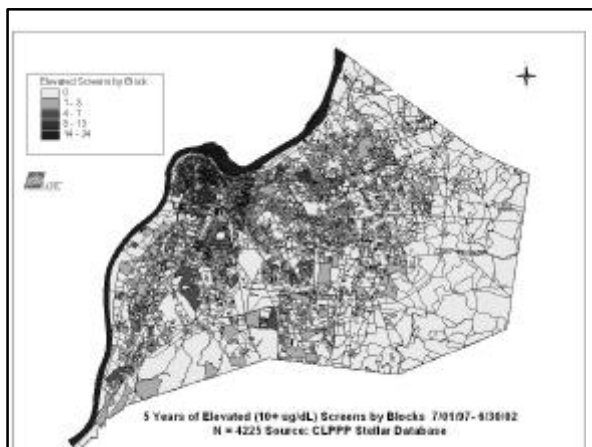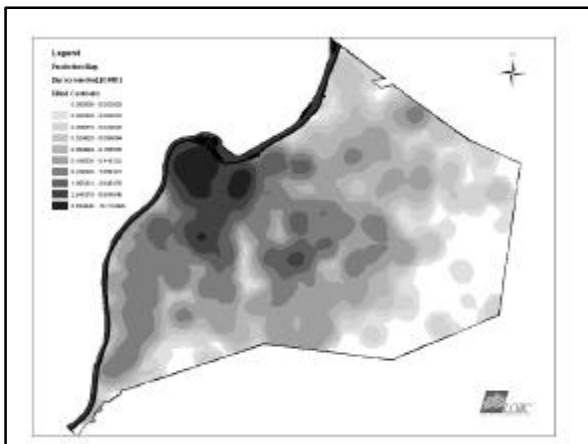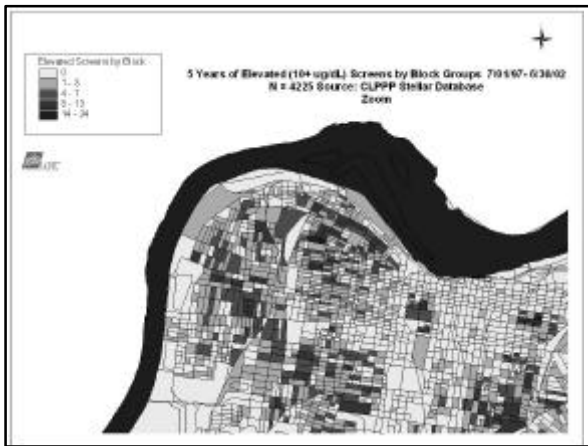4. **Other Data Sets – Future Investigations**

---

1. Surveillance

- Census Tracts
- Block Groups
- Blocks
- Continuous

5 Years of Elevated (10+ ug/dL) Screens by Census Tracts 7/01/97 - 6/30/02
N = 4225 Source: CLPPP Stellar Database

5 Years of Elevated (10+ ug/dL) Screens by Block Groups 7/01/97 - 6/30/02
N = 4225 Source: CLPPP Stellar Database

5 Years of Elevated (10+ ug/dL) Screens by Blocks 7/01/97 - 6/30/02
N = 4225 Source: CLPPP Stellar Database

5 Years of Elevated (10+ ug/dL) Screens by Block Groups: 7/01/97 - 6/30/02
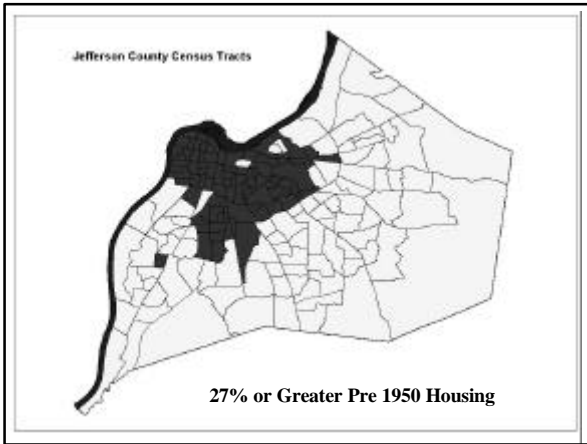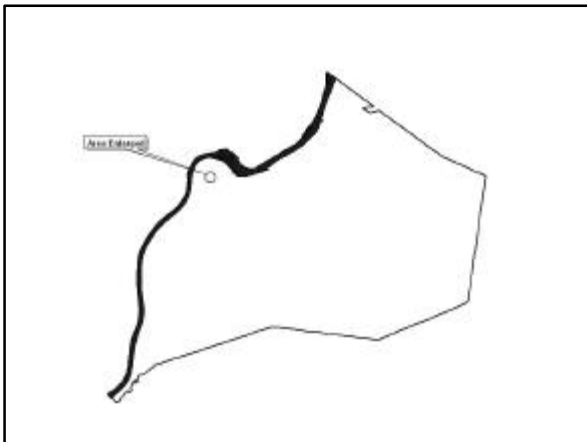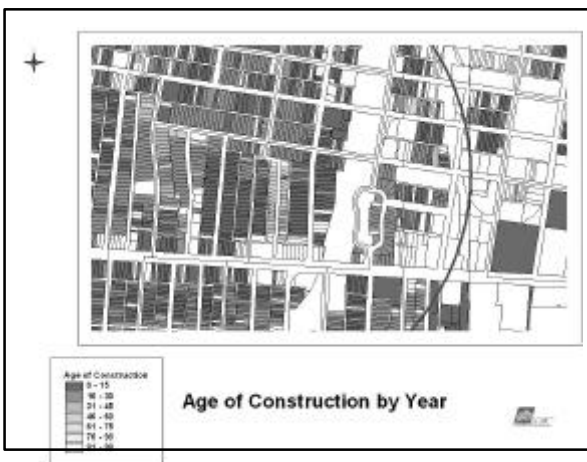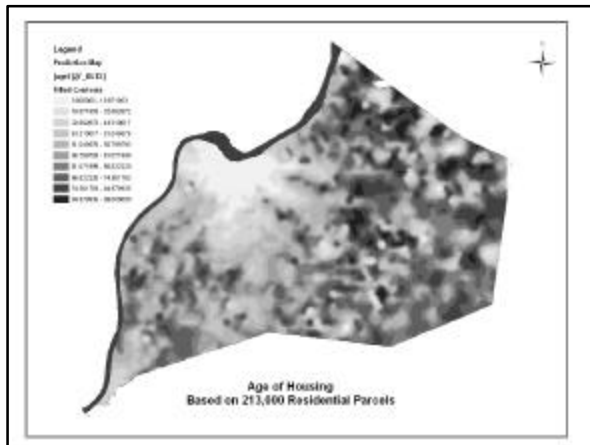N = 4225 Source: CLPPP Stellar Database
Zoom

2. Housing

- Age of Housing
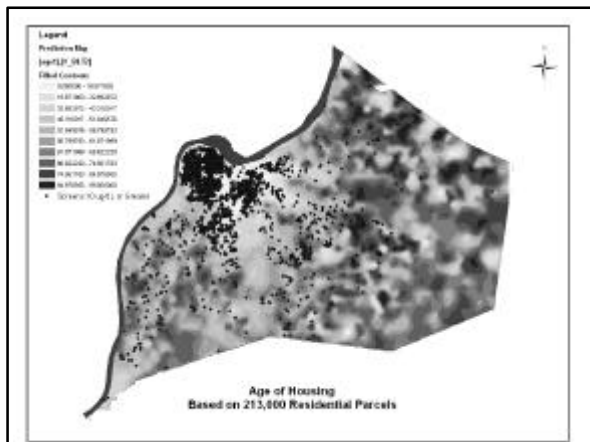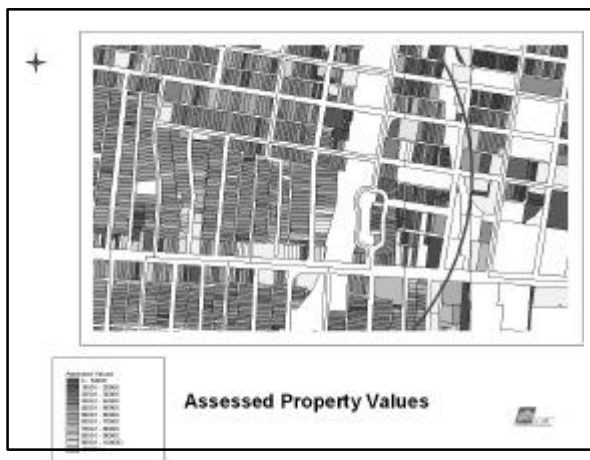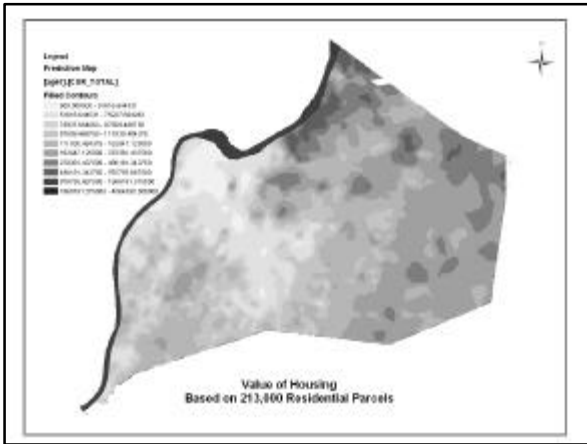- Accessed Value of Housing (Acknowledgement: Jim Holt)

Jefferson County Census Tracts

27% or Greater Pre 1950 Housing

Area Enlarged

Jefferson County Census Tracts

Age of Construction

Age of Construction by Year

Age of Housing
Based on 213,000 Residential Parcels

Age of Housing
Based on 213,000 Residential Parcels

Assessed Property Values

Value of Housing
Based on 213,000 Residential Parcels

Value of Housing
Based on 213,000 Residential Parcels

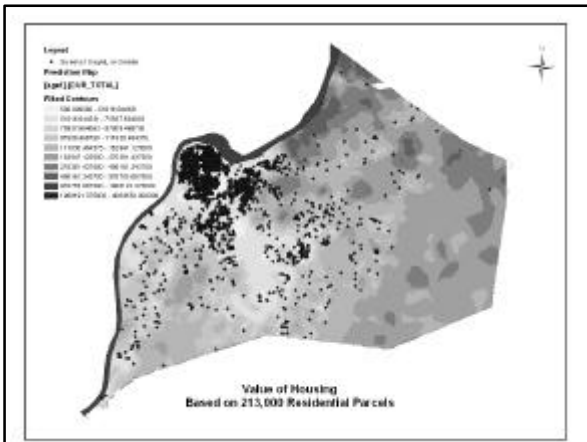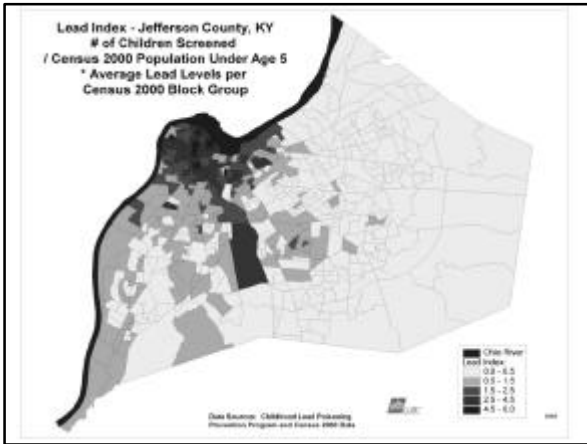## 3. Lead Level Predictor Model

- Past History Screening
- Population
- Screening Penetration

Lead Index - Jefferson County, KY
# of Children Screened
/ Census 2000 Population Under Age 5
* Average Lead Levels per
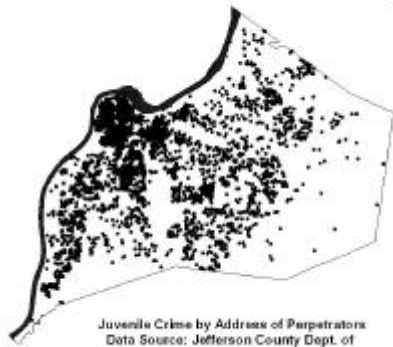Census 2000 Block Group

Lead Index Continuous Model
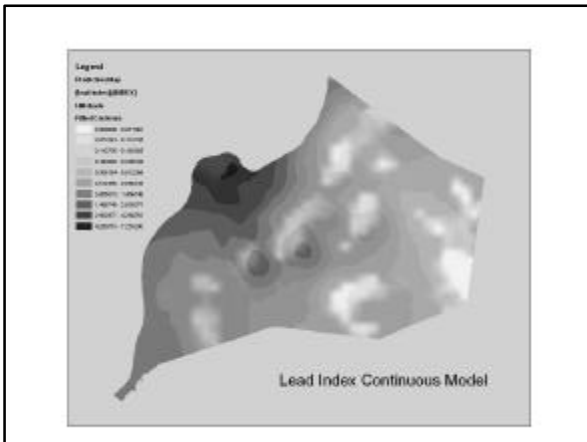
Other Data Sets

- Juvenile Crime
- School Dropouts

A. Juvenile Crime

Juvenile Crime Residences by Zip Code

Juvenile Crime by Address of Perpetrators
Data Source: Jefferson County Dept. of
Human Services - 1998
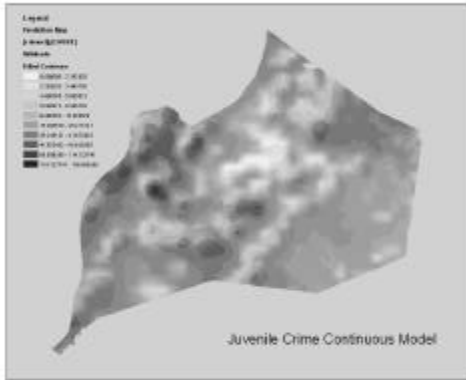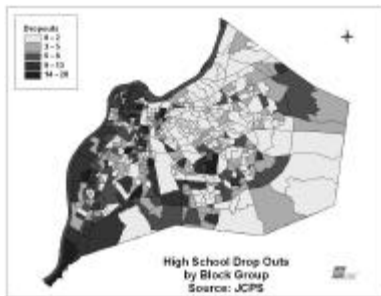

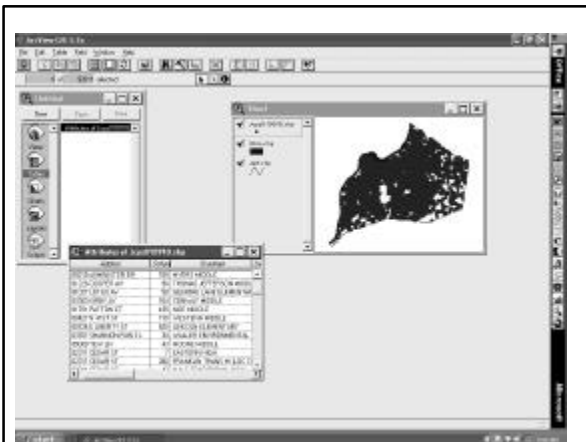Jefferson County, Kentucky
Number of Juvenile Offenders Resident
per Census 2000 Block Group

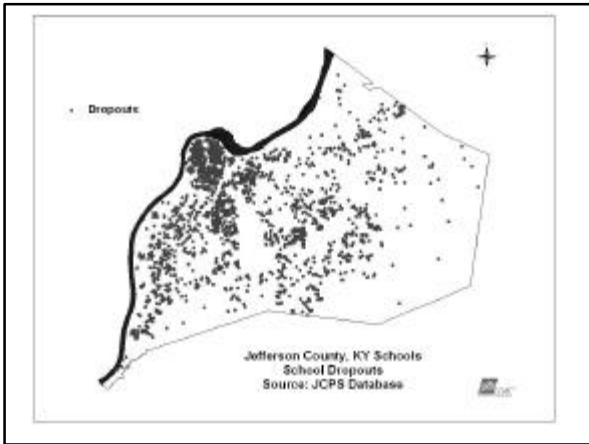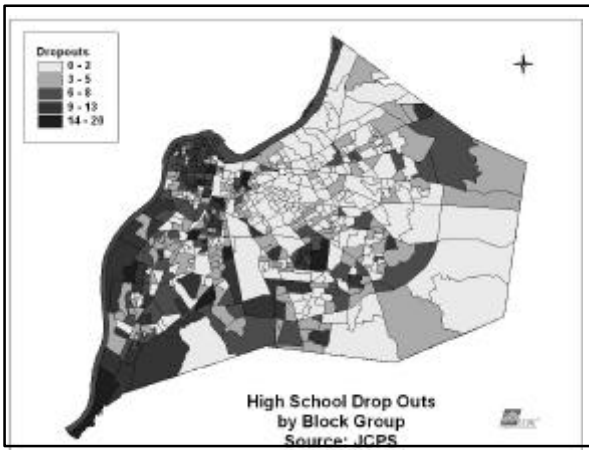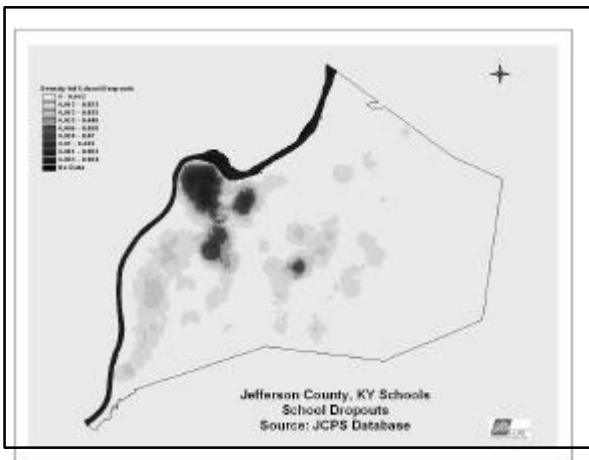Data Sources: Department of Human Services
and Census 2000 Data

Juvenile Crime Continuous Model

B. School Dropouts

High School Drop Outs
by Block Group
Source: JCPS

Jefferson County, KY Schools
School Dropouts
Source: JCPS Database

Dropouts
0 - 2
3 - 5
6 - 8
9 - 13
14 - 29

High School Drop Outs
by Block Group
Source: JCPS

Jefferson County, KY Schools
School Dropouts
Source: JCPS Database

Jefferson County, KY Schools
Elevated Screens Over School Dropouts
Source: JCPS Database

Thank You!